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AUTHOR Stipek, Deborah; And Others
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ABSTRACT

Instructional practices and social climates of 62 preschool and kindergarten programs serving poor and middle-class children were observed. Analyses revealed strong relationships between the nature of instruction and the social climate. Programs were divided into three types: (1) didactic programs, in which academic skills were stressed in a relatively negative social context; (2) child-centered programs, which deemphasized basic academic skills and offered a positive social context; and (3) intermediate programs, which were positioned between the other two program types. Teachers' beliefs about appropriate education for young childrn were associated with the kind of program in which they taught. Teachers' level of education and experience, and school policies regarding formal evaluation, retention, and testing, were not. Didactic programs were more likely to be private than public and more likely to be attended by middle-class children than by poor children. (RH)

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Characterizing Early Childhood Education Programs for Poor and Middle-Class Children

Deborah Stipek, Denise Daniels, Darlene Galluzzo,

& Sharon Milburn

University of California, Los Angeles

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Running Head: Programs

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Abstract

Detailed observations were done of instructional practices and the social climate of 62 preschool and kindergarten programs serving poor and middle-class children. Analyses revealed strong relationships between the nature of instruction (i.e.., the degree to which basic skills and performance outcomes were stressed) and the social context (e.g., teacher warmth and responsiveness). Analyses revealed that both preschool and kindergarten programs could be divided into three types--(1) "didactic" programs in which academic skills were stressed in a relatively negative social context, (2) "child-centered" programs which de-emphasized basic academic skills and offered a positive social context, and (3) "intermediate" programs which fall in between these two extremes. Teachers' beliefs about appropriate education for young children were associated with the kind of program they taught in, but teachers' level of education and experience, and school policies regarding formal evaluation, retention, and testing were not. Didactic programs were more likely to be private than public, and more likely to be attended by middle-class children than by poor children.

Characterizing Early Childhood Education Programs for Poor and Middle-Class Children

Policy makers have recently returned to early childhood education as a means of increasing the educational achievements of disadvantaged minority children. This resurgent interest in preschool programs results from many factors--including a growing population of poor minority children to be educated; high dropout rates; concerns about the relatively low achievement levels of American children in general; and recent research suggesting that preschool education has positive long-term effects on academic achievement and other variables, such as dropout rates, employment, and delinquency (Schweinhart, Weikart, & Larner, 1986; Lazar, Darlington, Murray, Royce, & Snipper, 1982). Thus, Head Start has recently been expanded, and many states and local school districts have invested in additional early childhood programs for poor children.

If scarce resources are to be allocated to early childhood education, it is extremely important that the most effective types of programs be implemented. But there is disagreement among experts about the value of different instructional approaches. Learning theorists tend to advocate the early introduction of basic skills using teacher-directed, didactic instructional approaches--such as those used in the Bereiter-Englemann (1966) Distar program--emphasizing recitation and memorization. They point to studies demonstrating that didactic

programs are effective in raising the academic achievement of poor, minority children (Gersten, 1986; Meyer, Gersten, & Gutkin, 1983).

Child development experts who are guided by constructivist theories of child development (e.g., Piaget's) advocate a "child-centered" approach which emphasizes child-initiated learning activities. Constructivists have expressed concerns about possible negative consequences of highly didactic programs, primarily in the area of social-motivational development. They have argued, for example, that didactic, teacher-controlled instruction undermines young children's intrinsic interest in learning (Katz, 1987), their perceptions of competence (Kamii, 1985), and their willingness to take academic risks (Elkind, 1987), and that it fosters dependency on adults authority for defining tasks and evaluating outcomes (Elkind 1986).

Criticisms of recent trends toward stressing academic skills have been based primarily on theory and evidence from studies of older children. For example, emphasis on performance and external evaluation--which are assumed to be characteristic of "academic" preschool and kindergarten programs--have been shown to result in low self-confidence and cautiousness in older children who perform poorly compared to their classmates. Lack of individualization and child choice--also presumed to be characteristic of programs that stress basic academic skills--have been shown to undermine older children's intrinsic interest in school tasks. (See Stipek, 1988, for a review of this

motivational research.) The validity of experts' claims about the effects of different early childhood education programs, although well founded in theory and research on older children's motivation, have not been tested, and the debate remains primarily rhetorical.

To assess motivational as well as achievement outcomes it will be important to characterize early childhood education programs in terms of variables, such as those discussed above, that are associated with both achievement and motivation. This might require a more multidimensional approach to characterizing programs than is currently used.

A few researchers have suggested alternatives to the teacher-directed versus child-centered dichotomy described above. Lay-Dopyera and Dopyera (1990), for example, differentiated between two child-centered curricula--one in which there is very little prestructuring and limiting of children's choices, and another in which teachers prepare activities and limit child choices on the basis of their knowledge of their children's interests and competencies. This is a useful distinction, with the second type of program representing a middle ground between didactic and child-centered approaches. Schweinhart et al. (1986) suggest a two-by-two categorization, with the role of the teacher being either initiator or responder as one factor and the role of the child as either initiator or responder as the other factor. The category defined by teacher-as-initiator and child-as-responder includes didactic programs, such as Distar. Child-

as-initiator and teacher-as-responder programs include child-centered programs. Schweinhart et al. include High Scope among programs in which both child and teacher are the initiators; they refer to programs in which neither child or teacher are initiators as "custodial."

These attempts to differentiate preschool programs are helpful, but these characterizations do not incorporate many aspects of instructional practice and elements of the social context known to affect social-motivational development, and we do not know to what degree they represent the types of programs available in the real world.

Observations of existing programs might reveal an even more complicated picture than these researchers describe. For example, teacher-directed instruction associated with the didactic approach could be conducted by a teacher who is punitive and humiliates children publicly for their mistakes, or by a supportive, nurturing teacher who emphasizes learning over correctness. In the former but not the latter case, instruction seems likely to have negative effects on children's self-confidence and willingness to participate. Child choice associated with child-centered approaches is presumed to foster intrinsic interest and learning. But child choice would not have these positive effects if products are compared and criticized such that children become afraid to select challenging tasks that will help them advance their skills and understanding. If all of

these combinations exist, we need a more differentiated way to characterize early childhood education programs.

The research reported here is an attempt to create an empirically-based approach to differentiating early childhood education programs with regard to a broad array of instructional and social-climate variables. Our goal was to identify conceptually meaningful dimensions on which a large and diverse group of early childhood education programs varied, and to use these dimensions to create a typology of programs that reflects the way instructional practices cohere in the real world.

A second purpose was to study relationships between the type of educational program and the socioeconomic status (SES) of the children served. Previous research has found that middle-class parents are more likely than lower-SES parents to hold constructivists' beliefs about how children learn--beliefs that are associated with child-centered approaches to early childhood education (e.g., McGillicuddy-De Lisi, 1982, 1985; see also Miller, 1988). If parents' beliefs affect school choice, middle-class children (whose parents presumably have more choice than poor children's parents) should be more likely than lower-SES children to attend child-centered programs.

Finally, the study was designed to assess the degree to which existing observation measures of program quality and easily quantified indices of quality (e.g., teacher/child ratio; teacher training and experience), as well as several controversial policies (e.g., formal evaluation, testing, and retention) were

associated with different types of instruction and with the social class of children served. These variables were assessed to provide a more comprehensive picture of how different instructional practices and policies cluster.

Given the absence of previous research, only a few rather tentative hypotheses were made. First, experts tend to favor child-centered approaches (Bredekamp, 1989). Assuming that better-trained teachers are more likely to be exposed to expert views, well-trained teachers were expected to utilize child-centered more than didactic approaches. Second, because didactic programs emphasize academic performance, they were expected to use more testing to determine entrance and promotion decisions, and more formal evaluations of academic performance than less didactic programs. In addition, didactic schools were expected to have more stringent promotion requirements (i.e., to hold back more children). This prediction is based on the assumptions that public schools do not have performance criteria for entrance to kindergarten, but some have minimum standards for promotion to first grade. Poor children were presumed to be more likely than more advantaged children to attend public schools, and more likely to fail to meet the first-grade promotion criteria. Programs that served poor children were, therefore, expected to promote more children to kindergarten but fewer children to first grade than programs that served primarily middle-class children.

Method

Programs

Sixty-two preschool and kindergarten classrooms were observed. Programs were selected--on the basis of reputation and conversations with directors, principals and teachers--to ensure a good distribution in terms of the nature of the curriculum, ethnicity and social class of the children served, and the type of program (e.g., public or private). A few of the programs were based on nationally recognized approaches (e.g., High Scope, Montessori). Primarily (over 70%) poor children (i.e., eligible for federal or state assistance) were served in 23 of the programs; 35 programs served primarily middle-class children, and the remaining 4 programs served a heterogeneous population with respect to social class. Students were predominantly (over 70%) White in 18 of the programs, African-American in 8, Latino in 15, and Asian in 2. The remaining 19 programs served an ethnically mixed population (i.e., there was not more than 70% of any ethnic group). One program was a Head Start Center, 31 were private, and 30 were in three different public school districts. Among the private programs, 12 were affiliated with a church or synagogue and 13 were for-profit. We cannot be sure that the sample is representative of existing preschools and kindergartens in the U.S., but it is *very* diverse.

Observations

Protocol. The development of the observation protocol was guided by our interest in the social-motivational effects, as

well as in the academic achievement effects of educational programs on young children. Because almost no research has assessed the social-motivational effects of instructional practices in early childhood education programs, research conducted on older children and adults was used to determine which aspects of instruction and classroom organization to code.

Observers made 27 judgments about each organized (teacher-planned) activity. Some of the judgments concerned the nature of the activity (e.g., intellectual, artistic, motor; paper-and-pencil, manipulatives, discussion) and others concerned how the activity was implemented (e.g., whether children were allowed or encouraged to work with peers, whether they were required to finish the task, how much discretion children had in carrying out the teacher's instructions, if and how the outcome was evaluated, and whether the teacher emphasized correctness, enjoyment, or learning). In addition to these descriptions of teacher-planned activities, 36 summary judgments were made at the end of the day. For example, judgments were made of the teacher's warmth and responsiveness, the diversity of activities, whether play- and work-time were clearly differentiated, and how frequently rewards were given and social comparisons made. Finally, observational ratings were supplemented by teachers' responses to several interview questions about practices (e.g., frequency and nature of homework) that were not observable during the day.

To assess relationships between scores based on the observation protocol developed for this study and previously

existing observation protocols developed to assess quality of early childhood education programs, observers also completed Harms and Clifford's (1980) "Early Childhood Environment Rating Scale" (ECERS), and the "Inventory of Classroom Practices," developed by Hyson (1989).

The Harms and Clifford (ECERS) measure is widely used to assess the quality of early childhood education programs and has been shown to predict child outcomes (see Phillips, 1987). The two subscales used in the present study were derived from a factor analysis of ECERS data from a national study of preschools (Whitebook, Howes, & Phillips (1989). The "appropriate caregiving" subscale includes items on adult-child interactions, supervision, and discipline. The "appropriate activities" subscale includes items on materials, schedule, and activities.

The Hyson scale includes 20 items that were taken directly from the National Association for the Education for Young Children guidelines for "developmentally appropriate" instruction for young children (Bredekamp, 1989). Most of the developmentally *in*appropriate items involve an emphasis on academic skills. Two subscores were used in the present study, one which consisted of items measuring the degree of developmentally appropriate and inappropriate instruction present in the class. The second included the six emotional climate items.

Procedure. Observers, who were predominantly doctoral students in educational psychology spent one full day in each

program. To establish reliability, two observers observed 12 of the programs concurrently. Observers arrived before school activities started, and remained until the end of the day or until the end of child activities. (Some programs had an extended outside freeplay period at the end of the day, which was not observed.) Observations ceased during periods of inactivity, such as during nap time.

Observers moved freely around the room when it was necessary to observe activities and interactions between teachers and children. Observers did not initiate interactions with children, and responded to child initiations in a friendly but nonencouraging manner.

Teacher Questionnaire

A questionnaire was completed by 52 teachers. The questionnaire included a series of questions concerning teachers' beliefs about the value of teacher-directed, formal instruction that emphasized performance. For example, they were asked to indicate their level of agreement, on a 1-to-5 scale, with statements such as: "Children who begin reading and math instruction in preschool will do better in elementary school;" "The best way to learn how to read is to practice matching letters and sounds over and over;" "Even 4- and 5-year-olds should be told whether their work is good or bad;" "Children learn best when they do learning activities chosen by teachers or parents." Scores were created by calculating the mean response over all items. An alpha coefficient computed for the teacher-

beliefs questionnaire indicated high internal consistency (alpha = .78).

Teacher/Administrator Interviews

Supplementary information on the socioeconomic status of children's families, school policies regarding the evaluation, testing, and retention of children, and on teacher qualifications were obtained by interviewing teachers, directors, and principals in the participating schools.

Results

Program Characteristics

The first task was to identify meaningful dimensions on which programs varied that could be used to characterize programs. Because the large number of variables precluded using factor analysis, variables were grouped using an analytic strategy, guided both by an *a priori* conceptual framework and by obtained intercorrelations among the variables. Thus, variables that were related conceptually were grouped if they were also strongly and significantly correlated to each other. Some variables were dropped because there was too little variance or because they were not significantly associated with any other variables. In a few cases, conceptually different groupings were combined because several sets of variables were closely associated statistically. For example, a set of variables related to the amount of choice children had (such as in selecting activities and workmates) was strongly correlated with sets of variables related to the diversity of activities and

materials available, and the amount of social interaction and peer assistance allowed or encouraged. Although conceptual distinctions among these sets of variables are useful, the variables were associated so strongly with each other statistically that separate subscales were not justified.

This analytic process yielded six subscales that differentiated classrooms. All of the items on each subscale are listed in the appendix. Programs with high scores on the **child-initiative** subscale (coefficient alphas for preschools and kindergartens were .88 and .89, respectively) gave children more choice in activities, offered more diverse activities and materials in a play-like (as opposed to business-like) atmosphere, and encouraged more social interaction than programs with low scores. This subscale is closely related to descriptions of child-centered programs based on constructivist theories of child development.

Programs with high scores on the **teacher warmth** subscale (alphas = .95/.91) had teachers who were nurturing, accepting, respectful, and responsive to children. Programs scoring high on the **positive control** subscale (alphas = .83/.79) were characterized by positive approaches to maintaining student engagement in sanctioned activities and minimizing misbehavior (for example, clear instructions, novel, interesting activities, and avoiding the use of ridicule, threats or punishment to motivate children).

In programs scoring high on the **academic emphasis** subscale (alphas = .78/.83) subject-matter was clearly differentiated and children spent a relatively large amount of time focused on academic topics--frequently using commercially prepared materials (such as worksheets). Tasks were often closed-ended (only one right answer) and were not embedded in practical or personally meaningful activities. Teachers in kindergartens with high scores on this subscale frequently gave flashcards or worksheets for homework. In programs high on the **performance pressure** subscale (alphas = .81/.76) teachers were relatively more likely to give negative evaluations and criticize wrong responses, and use threats and punishment to motivate children. They were also more likely to emphasize outcomes of tasks and less likely to emphasize enjoyment or learning or to tolerate nonconventional (but nondisruptive) behavior. In programs scoring high on the **evaluation stress** subscale (alphas = .81/.78), external evaluation and rewards were given relatively more frequently and social comparison was emphasized.

The groupings for the preschool and kindergarten classrooms were the same, with only a few exceptions. For example, flashcards and worksheets were given as homework in some kindergartens but almost no preschools. Consequently, this variable was included on the "academic emphasis" subscale for kindergarten- but not for preschool programs.

Reliability was assessed by correlating subscale scores derived from two observers' independent ratings for 12 programs.

Correlations for the six subscales ranged from .73 to .99, with a mean of .91.

Creating a Typology

These six subscales were not independent. Factor analysis of the six subscales resulted in a single factor, which accounted for 67% of the variance for preschools and 58% of the variance for kindergarten classrooms. The first three subscores (**child initiative**, **teacher warmth**, and **positive control**)--henceforth referred to as "Positive Social Context"--loaded positively on the factor and the second three (**academic emphasis**, **performance pressure**, and **evaluation stress**)--henceforth referred to as "Teacher-Directed Instruction"--loaded negatively on the factor. (See Table 1 for factor loadings.) Thus, programs that had relatively high scores on the positive social context subscales had relatively low scores on the teacher-directed instruction subscales, and vice versa.

Insert Table 1 about here

The analyses, therefore, suggest a unidimensional characterization of early childhood education programs. The poles of this continuum are consistent with the distinction early childhood education experts often make between child-centered programs and teacher-directed, didactic programs.

This unidimensional picture was supported by the results of two cluster analyses done (one for preschools and one for kindergartens) to create groups of programs that were similar to

each other with regard to the six dimensions assessed. The first, "Child-Centered," cluster included programs that were very high on the three positive social context subscales and very low on the three teacher-directed instruction subscales (see Figure 1). Twelve kindergarten and 10 preschool classrooms fell into this cluster. A second, "Didactic," cluster, containing 10 kindergarten and 9 preschool classrooms, included programs that were high on the teacher-directed instruction subscales and low on the positive social context subscales. The third, "Intermediate," cluster, containing 13 kindergartens and 8 preschools, fell somewhere in between these two extremes in terms of both the positive social context and teacher-directed instruction subscales.

Insert Figure 1 about here

Teacher Beliefs

The association between type of program and teachers' beliefs regarding the value of didactic, performance-oriented instruction was analyzed by a one-way analysis of variance (ANOVA), comparing mean teacher scores on the beliefs' scale for the three types of classrooms. The program effect was significant, $F(2, 43) = 3.42$, $p < .05$. Post hoc analyses (Scheffe) revealed that mean scores were significantly ($p < .05$) higher for teachers in programs placed in the "didactic" category ($M = 2.52$) than for teachers in programs placed in the "child-centered" category ($M = 1.84$); scores for teachers in the

"intermediate" programs were in between (M = 2.32) and not significantly different from scores for teachers in either of the other two types of programs.

Associations Between Program Type and Existing Observation Measures of Program Quality

Oneway ANOVAs, comparing the three program types, were computed for the two Hyson subscales--program and emotional climate--and the two ECERS subscales--appropriate caregiving and appropriate activities. Highly significant differences were found, with child-centered programs differing significantly from both of the other two types of programs on all but one of these measures, and differing from didactic programs on all of the measures. (See Table 2 for means and statistical results.) These two observation instruments, therefore, discriminated among all three types of programs designated in this study.

Insert Table 2 about here

Other Characteristics Associated with Program Type

Further analyses were done to assess program differences associated with public or private status, quality measures, and policies regarding formal evaluation, retention, and testing.

Private vs. public. Private preschool programs were more likely than public preschool programs to be didactic, $X^2(2) = 6.75$, $p < .05$. (See Table 3 for frequencies.) For-profit programs (which were all private) were less likely to be child-centered than were not-for-profit (private or public) programs,

$X^2(2) = 6.75$, $p < .05$. Public, private, and for-profit kindergarten programs did not vary systematically in terms of their instructional approaches.

Insert Table 3 about here

Quality and policies. None of the simple quality measures--adult-child ratio, teachers' experience, or teachers' education--was significantly associated with type of program. And of all of the policy variables (formal evaluation, retention, and testing), only one was marginally significantly associated with the type of program. Didactic and intermediate kindergartens were somewhat more likely than child-centered kindergartens to give skill ratings in their formal, report card evaluations, $X^2(2) = 5.41$, $p < .07$. Overall, type of instruction tended not to be associated with easily quantified indices of quality or of the policies measured in this study.

Social Class Differences in Types of Programs Attended

Comparisons were made between the 23 programs that were attended by predominantly (over 70%) poor children and the 35 programs that were attended by predominantly (over 70%) middle-class children. The poor programs tended to serve ethnic minorities (4 schools served predominantly Black children, 12 predominantly Latino children, 5 a mixture of Black and Latino children, 1 predominantly Asian children, and 1 mixed with regard to ethnicity). The middle-class programs included 4 that were attended by predominantly Black children, 1 by predominantly

Latino children, 1 by predominantly Asian children, 18 by predominantly White children, and 11 mixed with regard to the ethnicity of the children served. The 4 programs that served a mixture of poor and middle-class children were not included in the analyses discussed below.

Separate chi square analyses were computed for preschool and kindergartens to assess differences in the likelihood of poor versus middle-class programs being categorized as didactic, child-centered or intermediate. The relationship between type of preschool program and the social class of the children served was marginally significant. As can be seen from Table 3, preschool programs serving poor children tended to be more likely to be categorized as child-centered, and preschool programs serving middle-class children were more likely to be categorized as didactic, $X^2(2) = 5.82$, $p < .06$.

Table 4 shows that most of the preschool and kindergarten programs serving primarily poor children were public. Programs serving primarily middle-class preschoolers were private, and programs serving middle-class kindergartners in this sample were fairly evenly divided between private and public.

Insert Table 4 about here

Of the three simple quality measures, only adult/child ratio in preschools differed significantly for programs serving poor and middle-class children, with poor programs having lower ratios. Evaluation, retention and testing policies did not vary

systematically as a function of social class for either preschools or kindergartens.

A 2 X 2 analysis of variance, with grade (preschool and kindergarten) and SES (poor and middle-class) as the independent variables, was computed to test the hypothesis the middle-class children would be held back more than poor children in preschool and poor children would be held back more in kindergarten. A significant interaction effect, $F(1, 54) = 6.2$, $p < .05$, indicated that the data were consistent with the hypothesis. Among children who were eligible for kindergarten in terms of age, middle-class children (4.2%) were more likely to be held back than poor children (1.1%); poor children were more likely to be held back in kindergarten (7.8%) than middle-class children (3.5%).

Discussion

Characterization of Instruction

Analyses of the classroom observation data revealed six meaningful and coherent clusters of classroom variables. However, factor analysis of the subscales based on these clusters suggested the appropriateness of a unidimensional characterization of early childhood education programs. The poles of the continuum that emerged are similar to traditional distinctions made between child-centered and didactic instructional programs. The present data indicate that the differences can be conceptualized in terms of the social-

motivational context as well as in terms of the instructional practices that are typically discussed in the literature.

The prevalence of some combinations of classroom variables and absence of other combinations is striking. For example, out of 24 preschool- and kindergarten programs that were high (in the top third of the distribution) on the teacher-directed instruction subscales (combined), none was also high (in the top third of the distribution) and only seven were intermediate on the positive social-climate subscales (combined). A strong emphasis on academic achievement and teacher-directed instruction appeared to preclude a positive social context.

To some degree the negative relationship found between these two sets of variables is predictable. For example, it would be difficult to maintain a play-like atmosphere while emphasizing correct outcomes and criticizing incorrect responses. But, for the most part, the observed combinations are not the only combinations possible. There are no logical or practical reasons why teachers could not emphasize basic skills--even using worksheets--and at the same time be nurturing and responsive, provide children choices, encourage peer cooperation, and emphasize enjoyment.

Most early childhood experts would not expect highly teacher-directed, didactic instruction in a negative social context to have positive effects on children. It is the child-centered approach, in which performance outcomes and external evaluation are de-emphasized, that is most often promoted in the

early childhood education literature (Bredekamp, 1989). However, an emphasis on basic skills may be inevitable in the current social-political climate of concern about academic achievement. It is, therefore, important to determine why a strong academic emphasis tends to be associated with a negative social climate, and whether negative effects of didactic instruction could be alleviated by a positive social context.

One important finding of this research is that programs did not cluster at the extremes. To the contrary, the programs observed in this study fell at every point along the continuum. Thus, many of the programs observed were intermediate in terms of both the social context and academic emphasis. The distinctions between these three types were, moreover, supported by two assessments of early childhood education programs.

The value of the distinction between programs classified as "intermediate" and "didactic" in the present study is worth assessing. The intermediate approach may have more positive effects on children's social-motivational development and ultimate learning than a didactic approach, while satisfying policy makers and parents who want basic skills emphasized.

Aside from the somewhat greater use of skill ratings on report cards in didactic kindergartens, no differences were found in the assessment policies or in the simple quality measures (adult/child ratio, teacher education and experience) assessed in this study. Apparently, at least in this sample of programs,

these policies are not associated with the type of instruction offered.

Social Class of Children Served

Private preschools, and especially for-profit private preschools, were more likely to serve middle-class children and to be didactic. It is possible that poor children were less likely than middle-class children to receive didactic instruction because they tended not to attend private schools. We can only speculate about why private preschools serving middle-class children were so much more likely to offer programs that emphasize basic skills and performance in a relatively nonnurturing environment. First, it is possible that because public preschools are more carefully regulated, they hire teachers who are better trained in the conventional wisdom of early childhood education experts. The level of teachers' education did not differ significantly among the three types of programs, but the sample size may have been too small for meaningful differences to reach statistical significance. It is noteworthy that, on average, teachers who taught in preschools serving poor children (mostly public) and in child-centered programs had a bachelors degree. Teachers who taught in programs serving middle-class children and teachers in didactic programs had "some college," on average. Perhaps this difference in educational levels, while statistically insignificant, is associated with teachers' knowledge of the early childhood

educational literature, which tends to promote a child-centered approach.

It is also possible that although middle-class parents have been found in research to hold beliefs that are more compatible with a child-centered than a didactic approach, they are anxious about their children's academic success and seek out programs that emphasize basic skills. Or, perhaps directors of private programs serving middle-class children *believe*--right or wrong--that middle-class parents want a strong academic emphasis, and tailor their programs accordingly. Future research will be necessary to identify the reason for the differences observed in this study in private and public preschools and in preschools serving primarily poor and middle-class children.

None of the indicators of quality suggested that the programs serving poor children were of poorer quality than the programs serving middle-class children. To the contrary, poor preschoolers enjoyed a significantly smaller adult-child ratio and were more likely to be in the kind of child-centered program that the majority of early childhood education experts advocate. However, the sample of programs in this study is small and not necessarily representative. Moreover, nearly all of the programs serving poor children were part of regulated public school systems that provided free or highly subsidized education for eligible preschoolers. It is possible that a different picture would emerge for children whose parents are working at low-paying jobs--too well off to be eligible for subsidized programs, but

not well off enough to purchase quality programs. Quality data needs to be collected for programs serving this population, as well as the populations included in the present study. Such research bears directly on the value of policy proposals to make public, regulated programs available to all children on a sliding fee basis (Zigler & Gilman, in press).

The significant social class difference in retention at the preschool versus kindergarten levels may also have important policy implications. Public education is often not available prior to kindergarten, and it is more burdensome for poor parents than for middle-class parents to pay for an additional year of preschool for their child. If for these economic reasons poor children enter kindergarten earlier, on average, than middle-class children, they are more likely to be immature, and therefore, to be retained in kindergarten. If kindergarten retention is more harmful than later kindergarten entry, poor children will be disadvantaged by these practices.

In conclusion, research on the effects of different instructional approaches on child motivation and learning is essential given the high levels of participation of American children in preschool and kindergarten programs and the current emphasis on early childhood education as a means to redress educational problems of poor, minority children. If we devote scarce resources to such programs we should be confident that we are providing an educational experience that will enhance young children's social-motivational and intellectual development. The

empirically-based categorization of programs derived in this study may be a useful way to differentiate programs in research on program effects.

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Table 1

Factor Loadings for Six Subscales Based on Classroom Observations

Observation Subscales	Preschool	Kindergarten
Social Context		
Child-Initiative	.87	.69
Teacher Warmth	.84	.84
Positive Control	.82	.74
Teacher-Directed Instruction		
Academic Emphasis	-.84	-.79
Performance Pressure	-.96	-.93
Evaluation Stress	-.56	-.55

Table 2

Mean scores on the ECERS and Hyson's observation measure as a function of program type

	Child Centered	Intermed.	Didactic	$F(2, 59)$
Hyson				
Program	3.45^{a}	2.82^{a}	1.64^{b}	23.72^{***}
Emotional Climate	3.95^{a}	3.25^{b}	2.10^{c}	41.85^{***}
Harms & Clifford (ECERS)				
Appropriate Caregiving	4.91^{a}	4.30^{b}	3.28^{c}	22.45^{***}
Appropriate Activities	4.01^{a}	3.24^{b}	2.73^{b}	12.27^{***}

Note: Hyson measure in on a 5-point scale. ECERS measure is on a 7-point scale. According to the authors, 7 = excellent, 5 = good, 3 = minimally adequate, and 1 = inadequate.

Means in each horizontal row with different letter superscripts are significantly different from each other (Scheffe, < .05).

***$p < .001$

Table 3

Comparisons of Three Types of Programs

	Preschool			Kindergarten		
	Child Centered	Inter.	Didactic	Child Centered	Inter.	Didactic
N =	10	8	9	12	13	10
Public (#)	5	4	0	8	7	7
Private (#)	5	4	9	4	6	3
For profit (#)	0	4	4	1	3	1
Adult/Child Ratio (M)	6.3	8.4	8.7	12.0	12.4	11.4
Teacher's Experience[1] (M)	12.8	10.9	9.9	18.5	12.2	19.6
Teacher's Education[2] (M)	5.2	5.1	4.1	5.8	6.0	6.0
Formal Evaluation (#)	3	3	5	8	12	10
Letter Grades	0	0	0	3	5	2
Skill Ratings	2	2	4	5	10	9
Written Descr.	0	2	2	7	7	5
Held Back (%)	3.5	.8	3.7	5.2	3.5	7.6
Tests used in promotion decision? (# using)						
Mandatory	0	1	0	1	1	2
Optional	0	0	1	10	12	8
Social Class (N) =	(9)	(7)	(9)	(11)	(13)	(9)
Poor[3]	6	3	1	4	4	5
Middle class[3]	3	4	8	7	9	4

[1]Number of years teaching

[2]1=no high school diploma ... 4=some college; 5=B.A.; 6=teacher's credential; 7=master's degree

[3]Over 70% of children in class

Table 4

Comparisons by Social Class of Students

	Preschool			Kindergarten		
	Poor[1]	M-C[1]		Poor	M-C	
N =	10	15	X^2 or t	13	20	X^2 or t
Public (#)	7	0	11.32***	12	8	6.97**
Private (#)	3	15		1	12	
For Profit (#)	0	8	5.58*	0	5	2.13
Adult/Child Ratio (M)	6.6	8.9	-2.37*	10.4	12.9	-1.40
Teacher's Experience[2] (M)	11.3	9.9	.43	16.8	15.4	.41
Teacher's Education[3] (M)	5.0	4.4	1.45	6.2	5.8	1.21
Formal Evaluation (#)	3	8	.55	11	17	.13
Letter Grades	0	0	--	4	6	0
Skill Ratings	1	7	2.21	7	15	.35
Written Descr.	1	3	.01	6	11	0
Tests used in promotion decision? (#)						
Mandatory	1	0	2.17	2	2	0
Optional	0	1		10	18	

[1]Over 70%

[2]Number of years teaching

[3]1=no high school diploma ... 4=some college; 5=B.A.; 6=teacher's credential; 7=master's degree

*p < .05; **p < .01; ***p < .001

Appendix

Observational Items on Each Subscale

Child-Initiative (Alphas: preschool = .88/kindergarten = .89)

*Children choose peers to work/play with[1]
*Children have discretion in how they complete activities
*Children can opt out of activities
*Children determine when they have completed activities
*Movement is not restricted
Large diversity of activities
Wide variety of freeplay materials available
*Activities individualized
*Social interaction with peers encouraged
Peer assistance encouraged
*Play-like atmosphere

Teacher Warmth (Alphas: .95/.91)

Teacher nurturance *high*
Teacher acceptance high
Teacher responsiveness to child comments *high*
Teacher respect for children *high*
Teacher display of positive (playful) emotions *high*

Positive Control (Alphas: .83/.79)

Instructions very clear; children always know what to do
Interesting, novel activities; teacher enthusiastic
*Frequent praise
Negative discipline (ridicule, threats,...) *low*
Commands ("Don't..."; "Stop...") *low*
Teacher redirects children to another activity as discipline strategy
*Children's participation/attention *high*
Children's misbehavior *low*

Academic Emphasis (Alphas: .78/.83)

Large amount of time spent in academic activities
Large amount of time spent using worksheets
*Activities mostly closed-ended (one right answer)
*Tasks often *de*contextualized (not embedded in practical or personally meaningful activity)
Teacher does *not* make use of spontaneous opportunities to relate basic skills to everyday experience
Clear subject-matter divisions
Play- and work-time clearly distinguished (Pre-K only)
Flashcards and worksheets used for homework (K only)

Performance Pressure (Alphas: .81/.76)

*Teacher criticizes incorrect responses
Teacher has low tolerance for nonconventional (but not disruptive) behavior
Social comparisons emphasized
*Teacher emphasizes outcome (doing it right)
*Teacher does *not* emphasize enjoyment
*Teacher does *not* emphasize learning, understanding
Teacher motivates by commands, threats, and punishment
Play- and work-time clearly distinguished (K only)

Evaluation Stress (Alphas: .81/.78)

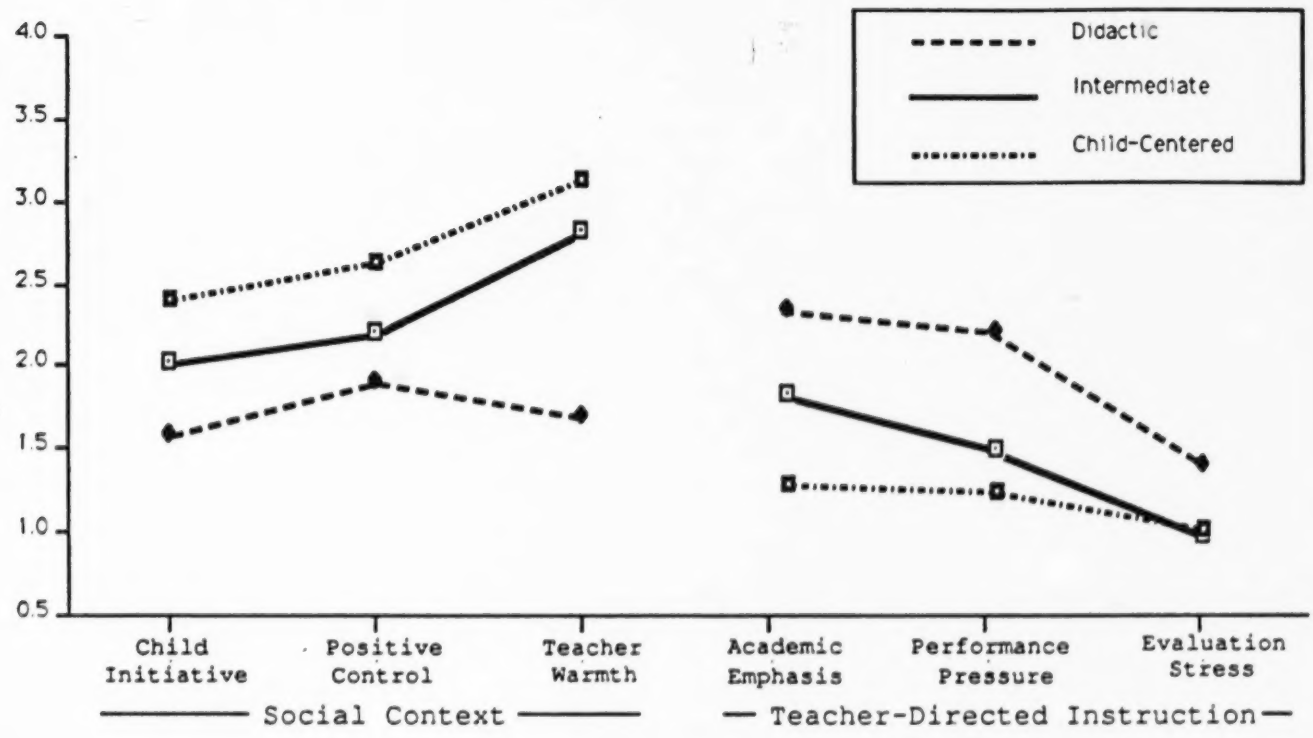
Frequent evaluation (grades, stickers, number correct)
Teachers use external reinforcers to motivate
Rewards given frequently for completing work correctly
Rewards given frequently for "best" work
Frequent social comparisons mentioning good performance
Frequent social comparisons mentioning high effort
Frequent social comparisons mentioning low effort

*Starred items concerns judgments made about each organized (teacher-directed) activity; scores are based on means, summing over all such activities. All other items are summary judgments made at the end of the observation.

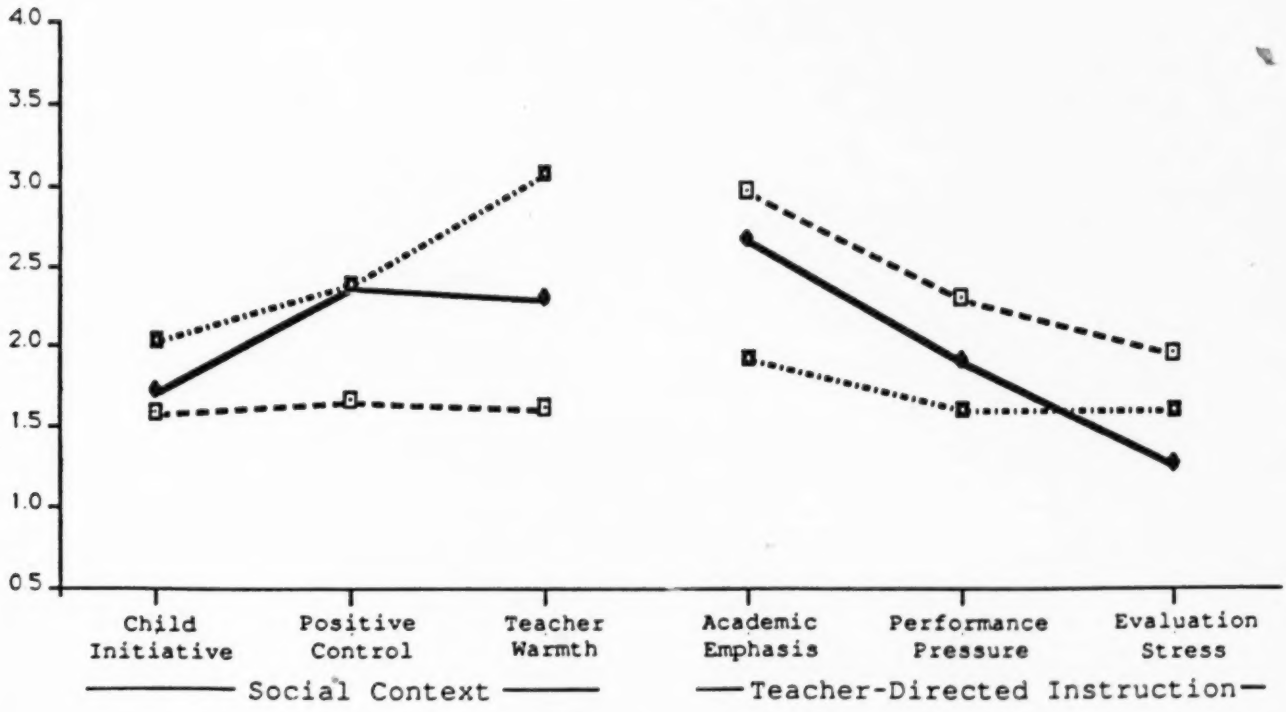
[1]All items involve a 3- or 4-point response scale. For example, the choices for this scale were: (1) teacher determines who children work/play with; (2) children have some discretion, limited by teacher grouping or direction, and (3) children decide who to work/play with; teacher may suggest. Classrooms that had relatively high scores on the Child-Initiative dimension tended to have relatively higher scores on this and the other items listed.

Figure 1

Mean Scores on Subscales for Three Program Clusters



Preschool



Kindergarten

6DS/05